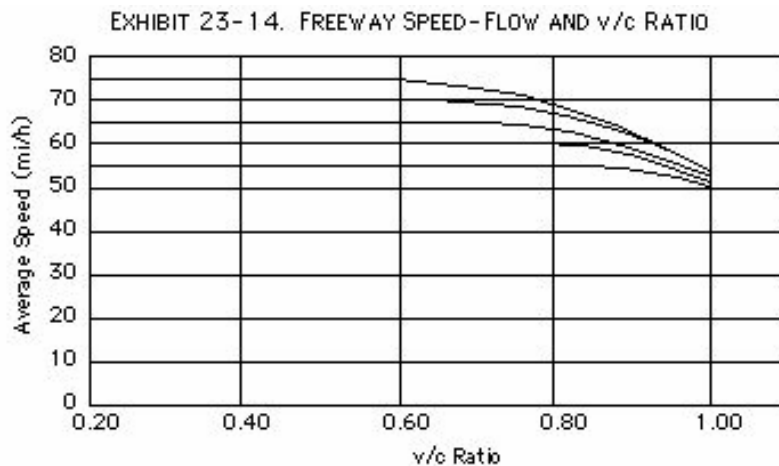


The HCM notes that both of these exhibits are based on assumptions about the roadway segment being analyzed. In the case of HCM Exhibit 23-12 (Urban Freeway FFS) a base FFS of 70 mi/h is assumed along with an ideal lane width of 12 feet and a lateral clearance of 6 feet. The assumptions for HCM Exhibit 23-13 (Rural Freeway FFS) are the same except a base FFS of 75 mi/h is assumed. If the segment being studied does not match these assumptions then adjustments would need to be carried out.

Volume/capacity ratio

The second of the two factors, v/c ratio, has little effect on passenger-car speed until it is greater than 54 to 80 percent depending on FFS. The HCM notes that FFS has more effect on speed at low v/c ratios than the v/c ratio itself. HCM Exhibit 23-14 shows the effect that varying v/c ratios have on the average speed.



As is evident by the graph, as v/c ratio increases past a certain point (54-80 percent, dependent on FFS) the average speed decreases. The v/c ratio itself is clearly